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**DECLARATION FOR UTILITY OR
DESIGN
PATENT APPLICATION
(37 CFR 1.63)**

☒ Declaration Submitted with Initial Filing OR ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	HES 2001-IP-003428
First Named Inventor	B. Raghava Reddy
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiner Name	

As the below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original and first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Methods of Generating Gas In Well Fluids

(Title of the Invention)

the specification of which

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT InternationalApplication Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

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DECLARATION — Utility or Design Patent ApplicationDirect all correspondence to: ☒Customer Number
or Bar Code LabelOR ☐

Correspondence address below

28857

PATENT TRADEMARK OFFICE

Name

Address

City

State

ZIP

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR :

☐ A petition has been filed for this unsigned inventorGiven Name B. Raghava
(first and middle [if any])Family Name Reddy
or SurnameInventor's
Signature*B. Raghava Reddy*

Date

5/29/02

Duncan

Residence: City

OK

State

U.S.

Country

India

Citizenship

Mailing Address 2013 Waverly Drive

Duncan

City

OK

State

73533

ZIP

U.S.

Country

NAME OF SECOND INVENTOR:

☐ A petition has been filed for this unsigned inventorGiven Name Krishna M.
(first and middle [if any])Family Name Ravi
or SurnameInventor's
Signature*Krishna M. Ravi*

Date

May 23, 02

Kingwood

Residence: City

TX

State

U.S.

Country

U.S.

Citizenship

Mailing Address 3407 Rambling Pines Drine

Kingwood

City

TX

State

77345

ZIP

U.S.

Country



Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION**ADDITIONAL INVENTOR(S)****Supplemental Sheet**Page 1 of 2**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventorGiven
Name James E.Family Name
or Surname GriffithInventor's
Signature

Date

5/29/02

Duncan
Residence: CityOK
StateU.S.
CountryU.S.
Citizenship1108 Plato Road #52
Mailing Address

Mailing Address

City Duncan

OK
State73533
ZIPU.S.
Country**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventorGiven
Name FrankFamily Name
or Surname ZamoraInventor's
Signature

Date

5/29/02

Duncan
Residence: CityOK
StateU.S.
CountryU.S.
Citizenship2017 Woodcrest
Mailing Address

Mailing Address

City Duncan

OK
State73533
ZIPU.S.
Country**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventorGiven
Name KarenFamily Name
or Surname LukeInventor's
Signature

Date

05/28/02

Duncan
Residence: CityOK
StateU.S.
CountryU.S. CANADIAN
BRITISH
Citizenship1403 North 12th
Mailing Address

Mailing Address

City Duncan

OK
State73533
ZIPU.S.
Country

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION**ADDITIONAL INVENTOR(S)****Supplemental Sheet**Page 2 of 2

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
John L. Given Name		Dennis, Jr. Family Name or Surname	
Inventor's Signature <i>John L. Dennis Jr.</i>		Date <i>5-29-02</i>	
Marlow Residence: City	OK State	U.S. Country	U.S. Citizenship
810 W. Seminole Mailing Address			
Mailing Address			
Marlow City	OK State	73055 ZIP	U.S. Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Ricky A. Given Name		Cox Family Name or Surname	
Inventor's Signature <i>Ricky A. Cox</i>		Date <i>5-29-02</i>	
Comanche Residence: City	OK State	U.S. Country	U.S. Citizenship
Route 3, Box 272E Mailing Address			
Mailing Address			
Comanche City	OK State	73529 ZIP	U.S. Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Application Number	
Filing Date	
First Named Inventor	B. Raghava Reddy
Title	Methods of Generating Gas In
Art Unit	
Examiner Name	
Attorney Docket Number	HES 2001-IP-003428U1C1

I hereby appoint:

☐ Practitioners associated with the Customer Number:

OR

☒ Practitioner(s) named below:

Name	Registration Number
see attached	

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☐ The address associated with the above-mentioned Customer Number:

OR

☐ The address associated with Customer Number:

OR

<input type="checkbox"/> Firm or Individual Name				
Address				
Address				
City		State		Zip
Country				
Telephone		Fax		

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	Craig W. Roddy		
Signature	<i>Craig W. Roddy</i>		
Date	02-26-04	Telephone	580.251.3012

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Please type a plus sign (+) inside this box → ☐

PTO/SB/02C (3-87)

Approved for use through 9/30/88. OMB 0251-0032

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
 Under the Paperwork Reduction Act of 1980, no persons are required to respond to a collection of information unless it contains a
 valid OMB control number.

DECLARATION		REGISTERED PRACTITIONER INFORMATION (Supplemental Sheet)	
Name	Registration Number	Name	Registration Number
Halliburton Energy Services, Inc. Practitioners		Baker Botts Practitioners	
William E. Shull	29,438	Mitchell D. Lukin	30,772
William M. Imwalle	35,904	Carey C. Jordan	47,646
Robert A. Kent	28,626	Paul R. Morico	35,960
Craig W. Roddy	36,256	Iona Kaiser	53,086
John W. Wustenberg	35,415		

Caution: Read Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEE OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Declaration — Registered Practitioner Information (Supplemental Sheet) (PTO/SB/02C)(1-1.4)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(b)Applicant/Patent Owner: B. Raghava Reddy et al.Application No./Patent No.: unknown Filed/Issue Date: concurrently herewithEntitled: Methods of Generating Gas In Well FluidsHalliburton Energy Services, Inc., a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or2. ☐ an assignee of less than the entire right, title and interest.

The extent (by percentage) of its ownership interest is _____ %

in the patent application/patent identified above by virtue of either:

A. [☒] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 12565, Frame 901, or for which a copy thereof is attached.

OR

B. [☐] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

[☐] Additional documents in the chain of title are listed on a supplemental sheet.[☒] Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

2-26-2004

Date

580.251.3012

Telephone number

Craig W. Roddy

Typed or printed name

Craig W. Roddy

Signature

Senior Counsel

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



AUGUST 09, 2002

HALLIBURTON ENERGY SERVICES
CRAIG W. RODDY
2600 SOUTH SECOND STREET
DUNCAN, OK 73536-0440

PTAS **RECEIVED**

AUG 16 2002

CRAIG W. RODDY

Chief Information Officer
Washington, DC 20231
www.uspto.gov

102121688A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/31/2002

REEL/FRAME: 012965/0901

NUMBER OF PAGES: 11

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

REDDY, B. RAGHAVA

DOC DATE: 05/29/2002

ASSIGNOR:

RAVI, KRISHNA M.

DOC DATE: 05/23/2002

ASSIGNOR:

GRIFFITH, JAMES E.

DOC DATE: 05/29/2002

ASSIGNOR:

ZAMORA, FRANK

DOC DATE: 05/29/2002

ASSIGNOR:

LUKE, KAREN

DOC DATE: 05/28/2002

ASSIGNOR:

DENNIS JR., JOHN L.

DOC DATE: 05/29/2002

ASSIGNOR:

COX, RICKY A.

DOC DATE: 05/29/2002

012965/0901 PAGE 2

ASSIGNEE:

HALLIBURTON ENERGY SERVICES, INC.
10200 BELLAIRE BOULEVARD
HOUSTON, TEXAS 77072

SERIAL NUMBER: 10159590
PATENT NUMBER:

FILING DATE: 05/31/2002
ISSUE DATE:

MARCUS KIRK, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

06-12-2002



102121688

Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

Tab settings ⇌ ⇌ ⇌ ▼ ▼ ▼ ▼ ▼ ▼ ▼

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

B. Raghava Reddy; Krishna M. Ravi; James E. Griffith;
Frank Zamora; Karen Luke; John L. Dennis, Jr.,
Ricky A. CoxAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

05/23/02 (Ravi)

05/28/02 (Luke)

Execution Date: 05/29/02 (Reddy; Griffith;
Zamora; Dennis, Jr.; Cox)

2. Name and address of receiving party(ies)

Name: Halliburton Energy Services, Inc.

Internal Address: _____

Street Address: 10200 Bellaire Boulevard

City: Houston State: TX Zip: 77072

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 05/23/02

A. Patent Application No.(s) _____

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Craig W. Roddy

Internal Address: Halliburton Energy Services

Street Address: 2600 South Second Street

City: Duncan State: OK Zip: 73536-0440

6. Total number of applications and patents involved: ☒ 1

7. Total fee (37 CFR 3.41).....\$ 40.00

☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit account number:

08-0300

DO NOT USE THIS SPACE

9. Signature.

Craig W. Roddy

Name of Person Signing

Signature

5-30-02

Date

Total number of pages including cover sheet, attachments, and documents: ☒ 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

06/11/2002 TDIAZ1 00000166 080300 10159590

01 FC:581

40.00 CH

10/159590

06/11/2002

ASSIGNMENT

Whereas, I/We, B. Raghava Reddy, of Stephens County, Duncan, Oklahoma; Krishna M. Ravi of Harris County, Kingwood, Texas; James E. Griffith, of Stephens County, Duncan, Oklahoma; Frank Zamora of Stephens County, Duncan, Oklahoma; Karen Luke of Stephens County, Duncan, Oklahoma; John L. Dennis, Jr., of Stephens County, Marlow, Oklahoma and Ricky A. Cox, of Stephens County, Comanche, Oklahoma have invented METHODS OF GENERATING GAS IN WELL FLUIDS for which I have made application for Letters Patent of the United States; and

Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application first executed on May 23, 2002, submitted concurrently herewith, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

B. Raghava Reddy
B. Raghava Reddy

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said B. Raghava Reddy and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal

Sheila Gibbs
(Notary Public)

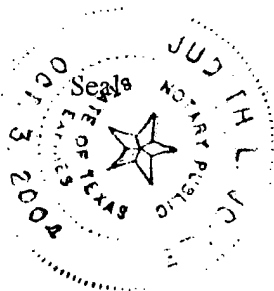
My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 23 day of May, 2002, at Houston, Harris County, Texas U.S.A.

Krishna M. Ravi
Krishna M. Ravi

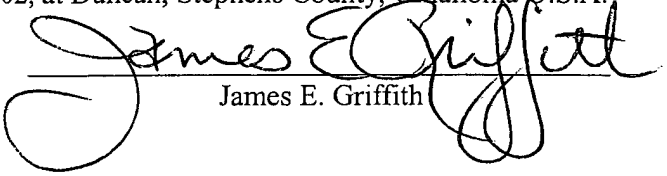
State of Texas)
) ss
County of Harris)

Before me personally appeared said Krishna M. Ravi and acknowledged the foregoing instrument to be his free act and deed this 23rd day of May, 2002.



Judith L. Lohle
(Notary Public)

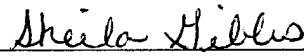
Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.


James E. Griffith

State of Oklahoma)
) ss
County of Stephens)

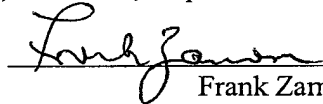
Before me personally appeared said James E. Griffith and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal


(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119


Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.


Frank Zamora

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Frank Zamora and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal


(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 28th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

Dr. K Luke

Karen Luke

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Karen Luke and acknowledged the foregoing instrument to be his free act and deed this 28th day of May, 2002.

Seal

Sheila Gibbs

(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

John L. Dennis, Jr.

John L. Dennis, Jr.

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said John L. Dennis, Jr. and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

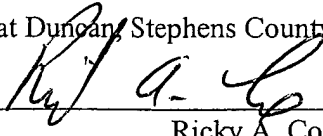
Seal

Sheila Gibbs

(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

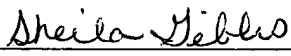


Ricky A. Cox

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Ricky A. Cox and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal



(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119



UNITED STATES
PATENT AND
TRADEMARK OFFICE

AUGUST 09, 2002

HALLIBURTON ENERGY SERVICES
CRAIG W. RODDY
2600 SOUTH SECOND STREET
DUNCAN, OK 73536-0440

PTAS **RECEIVED**

AUG 16 2002

CRAIG W. RODDY

Chief Information Officer
Washington, DC 20231
www.uspto.gov

102121688A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 05/31/2002

REEL/FRAME: 012965/0901
NUMBER OF PAGES: 11

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

REDDY, B. RAGHAVA

DOC DATE: 05/29/2002

ASSIGNOR:

RAVI, KRISHNA M.

DOC DATE: 05/23/2002

ASSIGNOR:

GRIFFITH, JAMES E.

DOC DATE: 05/29/2002

ASSIGNOR:

ZAMORA, FRANK

DOC DATE: 05/29/2002

ASSIGNOR:

LUKE, KAREN

DOC DATE: 05/28/2002

ASSIGNOR:

DENNIS JR., JOHN L.

DOC DATE: 05/29/2002

ASSIGNOR:

COX, RICKY A.

DOC DATE: 05/29/2002

012965/0901 PAGE 2

ASSIGNEE:

HALLIBURTON ENERGY SERVICES, INC.
10200 BELLAIRE BOULEVARD
HOUSTON, TEXAS 77072

SERIAL NUMBER: 10159590
PATENT NUMBER:

FILING DATE: 05/31/2002
ISSUE DATE:

MARCUS KIRK, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

06-12-2002



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(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

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U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

B. Raghava Reddy; Krishna M. Ravi; James E. Griffith;
Frank Zamora; Karen Luke; John L. Dennis, Jr.,
Ricky A. CoxAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: Halliburton Energy Services, Inc.

Internal Address: _____

Street Address: 10200 Bellaire BoulevardCity: Houston State: TX Zip: 77072Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

05/23/02 (Ravi)

05/28/02 (Luke)

Execution Date: 05/29/02 (Reddy; Griffith;
Zamora; Dennis, Jr.; Cox)

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 05/23/02

A. Patent Application No.(s) _____

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Craig W. RoddyInternal Address: Halliburton Energy ServicesStreet Address: 2600 South Second StreetCity: Duncan State: OK Zip: 73536-04406. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41).....\$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit account number:

08-0300

DO NOT USE THIS SPACE

9. Signature.

Craig W. Roddy

Name of Person Signing

Signature

5-30-02

Date

Total number of pages including cover sheet, attachments, and documents: 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

06/11/2002 TDIAZ1

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10159590

01 FC:581

40.00 CH

10/159590



ASSIGNMENT

Whereas, I/We, B. Raghava Reddy, of Stephens County, Duncan, Oklahoma; Krishna M. Ravi of Harris County, Kingwood, Texas; James E. Griffith, of Stephens County, Duncan, Oklahoma; Frank Zamora of Stephens County, Duncan, Oklahoma; Karen Luke of Stephens County, Duncan, Oklahoma; John L. Dennis, Jr., of Stephens County, Marlow, Oklahoma and Ricky A. Cox, of Stephens County, Comanche, Oklahoma have invented METHODS OF GENERATING GAS IN WELL FLUIDS for which I have made application for Letters Patent of the United States; and

Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application first executed on May 23, 2002, submitted concurrently herewith, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

B. Raghava Reddy
B. Raghava Reddy

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said B. Raghava Reddy and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal

Sheila Gibbs
(Notary Public)

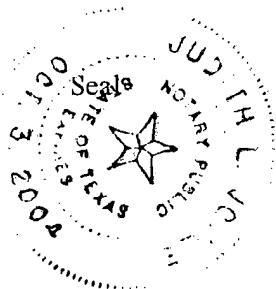
My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 23 day of May, 2002, at Houston, Harris County, Texas U.S.A.

Krishna M. Ravi
Krishna M. Ravi

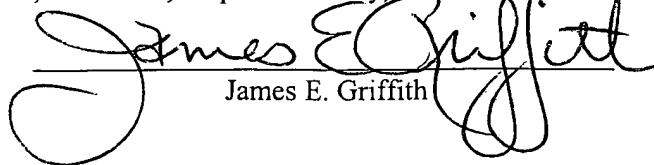
State of Texas)
) ss
County of Harris)

Before me personally appeared said Krishna M. Ravi and acknowledged the foregoing instrument to be his free act and deed this 23rd day of May, 2002.



Sheila Gibbs
(Notary Public)

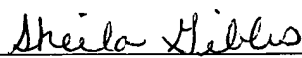
Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.


James E. Griffith

State of Oklahoma)
) ss
County of Stephens)

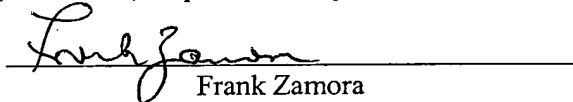
Before me personally appeared said James E. Griffith and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal


(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

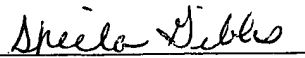
Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.


Frank Zamora

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Frank Zamora and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal


(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 28th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

Dr. K Luke

Karen Luke

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Karen Luke and acknowledged the foregoing instrument to be his free act and deed this 28th day of May, 2002.

Seal

Sheila Gibbs

(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

John L. Dennis, Jr.

John L. Dennis, Jr.

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said John L. Dennis, Jr. and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

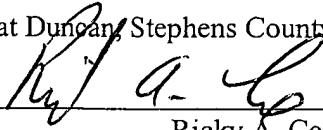
Seal

Sheila Gibbs

(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119

Executed this 29th day of May, 2002, at Duncan, Stephens County, Oklahoma U.S.A.




Ricky A. Cox

State of Oklahoma)
) ss
County of Stephens)

Before me personally appeared said Ricky A. Cox and acknowledged the foregoing instrument to be his free act and deed this 29th day of May, 2002.

Seal



(Notary Public)

My Commission Expires: September 13, 2004
Commission Number: 00014119